Five Year Review Report

First Five Year Review Report
for
Interstate Pollution Control Inc.
Winnebago County, Illinois

March 2011

PREPARED BY:

Illinois Environmental Protection Agency
Springfield, Illinois

Approved by:

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Superfund Division
U.S. EPA, Region 5

Date:

3/11/11

Five Year Review Report

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Attachments

List of Acronyms

AOC	Administrative Order on Consent
ARARs	Applicable or Relevant and Appropriate Requirements
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
HDPE	High Density Polyethylene
Illinois EPA	Illinois Environmental Protection Agency
IPCB	Illinois Pollution Control Board
ICs	Institutional Controls
IPC	Interstate Pollution Control, Inc.
FML	Flexible Membrane Layer
MCL	Maximum Contaminant Level
NCP	National Contingency Plan
NPL	National Priorities List
O&M	Operation and Maintenance
PRP	Potentially Responsible Party
QA	Quality Assurance
PCE	Perchloroethylene
PRP	Potential Responsible Party
PCOR	Preliminary Closeout Report
RA	Remedial Action
RAO	Remedial Action Objective
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
Site	Illinois Pollution Control, Inc. Site in Rockford, Illinois
SVE	Soil Vapor Extraction
SER	Southeast Rockford Groundwater Contamination NPL Site
TCE	Trichloroethylene
TCA	Trichloroethane
mg/L	milligrams per liter (parts per million)
µg/L	micrograms per liter (parts per billion)
UAO	Unilateral Administrative Order
UECA	Uniform Environmental Covenants Act
UU/UE	Unlimited Use/Unrestricted Exposure
U.S. EPA	U.S. Environmental Protection Agency
VOC	Volatile Organic Compound

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Executive Summary

The selected remedies for the Interstate Pollution Control, Inc. (IPC) site include:

1. Institutional Controls
2. Installation of an engineered barrier over the site
3. Monitored natural attenuation of site contaminants
4. Groundwater monitoring
5. Quarterly and annual inspection of the site
6. Contingent SVE enhancement

An Institutional Control (IC) Study was performed by representatives of the IPC Potential Responsible Parties (PRPs) and submitted on November 19, 2010 to the Illinois Environmental Protection Agency (Illinois EPA) to evaluate the effectiveness of the existing ICs. This will help Illinois EPA determine whether institutional controls have been implemented as intended by the 1999 ROD. Remedies 2 through 5 have already been fully implemented. Remedy 6 is a contingent remedy that has not been implemented because ground water monitoring data shows incremental decreases in down gradient concentrations of TCE and 1,1,1-TCA.

This Five Year Review found that the remedies were implemented in accordance with the requirements of the 1999 Record of Decision (ROD). All engineered remedies are functioning as designed. Institutional Controls are currently being evaluated by Illinois EPA to ensure they are effective and run with the land. Immediate threats to human health and the environment have been addressed by the remedy and no current exposures above acceptable levels exists.

The remedy at the IPC Site is considered protective in the short-term. However, long-term protectiveness will not be achieved until groundwater clean up standards are met and effective ICs are implemented. Long-term protectiveness also requires compliance with effective ICs which will be ensured by implementing, monitoring, maintaining and enforcing them as well as maintaining the site remedy components. Long-term stewardship must be ensured to verify compliance with ICs.

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Five Year Review Summary Form

SITE IDENTIFICATION		
Site name *(from WasteLAN)*: **Interstate Pollution Control, Inc.**		
EPA ID *(from WasteLAN):* ILT 180 011 975		
Region: 5	**State:** IL	**City/County:** Rockford, Winnebago County

SITE STATUS	
NPL status: ☒ Final ☐ Deleted ☐ Other (specify)	
Remediation status (choose all that apply): Under Construction ☒ Operating ☐ Complete	
Multiple OUs?* YES X NO	**Construction completion date: September 6, 2006**
Has site been put into reuse? YES ☒ NO	

REVIEW STATUS	
Lead agency: EPA ☒ State ☐ Tribe ☐ Other Federal Agency _____	
Author name: Doyle Wilson	
Author title: Environmental Protection Engineer	**Author affiliation:** Illinois EPA
Review period: April 2010 to December 2010	
Date(s) of site inspection: September 22, 2010	
Type of review: ☒ Post-SARA ☐ Pre-SARA ☐ NPL-Removal only ☐ Non-NPL Remedial Action Site ☐ NPL State/Tribe-lead ☐ Regional Discretion	
Review number: x1 (first) 2 (second) ☐ 3 (third) ☐ Other (specify) _____	
Triggering action: Actual RA Onsite Construction x Actual RA Start ☐ Construction Completion ☐ Previous Five Year Review Report ☐ Other (specify)	
Triggering action date *(from WasteLAN)*: April 10, 2006	
Due date *(five years after triggering action date)*: April 10, 2011	

* ["OU" refers to operable unit.]
** [Review period should correspond to the actual start and end dates of the Five Year Review in WasteLAN.]

Five Year Review Summary Form, cont'd.

Issues:

The existing ICs are under evaluation. A review of the institutional controls is necessary to determine if the remedy is functioning as intended with regard to the ICs and to ensure effective procedures are in-place for long-term stewardship at the Site.

Recommendations and Follow-up Actions:

Evaluate the IC Study submitted by the PRP Group to determine if the existing implemented ICs need to be enhanced.

Although this doesn't currently affect protectiveness, the Illinois EPA will continue to evaluate the water sample data and at the next five year review make a determination on the need to implement the contingent SVE design pilot test.

Protectiveness Statement:

The remedy at the IPC Site is considered protective in the short-term. However, long-term protectiveness will not be achieved until groundwater clean-up standards are met and effective ICs are implemented. Long-term protectiveness also requires compliance with effective ICs which will be ensured by implementing, monitoring, maintaining and enforcing them as well as maintaining the site remedy components. Long-term stewardship must be ensured to verify compliance with ICs.

Other Comments:

None.

Environmental Indicator Data:

Date of last Regional review of Human Exposure Indicator (from WasteLan): 05/18/2010
Human Exposure Survey Status: Current Human Exposure Controlled
Date of last Regional review of Groundwater Migration Indicator (from WasteLan): 05/18/2010
Groundwater Migration Survey Status: Contaminated Groundwater Migration Under Control
Ready for Reuse Determination Status (from WasteLan): Not Ready for Anticipated Use

Interstate Pollution Control Inc. Site
Rockford, Illinois
First Five Year Review Report

I. Introduction

The purpose of the Five Year Review is to determine whether the remedy at a Site is or is expected to be protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in Five Year Review reports. In addition, Five Year Review reports identify issues found during the review, if any, and recommendations to address them.

The Illinois Environmental Protection Agency (Illinois EPA) is preparing this Five Year Review pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) §121 and the National Contingency Plan (NCP). CERCLA §121 states:

> *If the President selects a remedial action (RA) that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such RA no less often than each five years after the initiation of such RA to assure that human health and the environment are being protected by the RA being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews.*

The U.S. EPA interpreted this requirement further in the NCP; 40 Code of Federal Regulations (CFR) §300.430(f)(4)(ii) states:

> *If a RA is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected RA.*

The Illinois Environmental Protection Agency conducted a Five Year Review of the remedial actions at the Interstate Pollution Control Inc. (IPC) Site (EPA ID: ILT180011975). This review was conducted for the entire site from April 2010 through December 2010. This report documents the results of the review.

This is the first Five Year Review for the Site. The triggering action for this review is five years after the Remedial Action start date which was April 10, 2006.

II. Site Chronology

Table 1. Chronology of Site Events

Event	Date
Initial site investigation and evaluation	1979
Preliminary field investigation of the site	1985
Site proposal to National Priorities List (NPL)	June 24, 1988
Site finalized on NPL	March 31, 1989
Unilateral Administrative Order Requiring additional removal activities at the site	August 6, 1991
Remedial Investigation Report and Feasibility Study (RI/FS) completed	September 28, 1999
Record of Decision (ROD) signature	September 28, 1999
Remedial Action (RA) start	April 10, 2006
Remedial Design (RD) complete	June 12, 2006
Preliminary Close-Out Report prepared	September 6, 2006
First Year Annual Report/Technical Memorandum submitted	August 28, 2008
Second Year Annual Report submitted	August 6, 2009
Third Year Annual Report submitted	September 21, 2010
Institutional Controls Investigation/Study Report submitted	November 19, 2010

III. Background

Physical Characteristics

The IPC site (the site) is located in an industrial area in the south central part of Rockford, Winnebago County, Illinois northwest of Magnolia and Peoples Avenue. The small (approximately 2.8 acre), irregularly-shaped site measures approximately 850 feet along the north boundary line and 270 feet along the east boundary line.

The site is located in an area that has been heavily industrialized since the turn of the century. Historic industrial activities in the area include metal casting, plating, machine tooling, textile manufacturing, leather tanning and printing operations. Aerial photographs and maps from the early to mid-1900s indicated there were several major quarries in the site vicinity. Most of these quarries have since been filled. A 1918 topographic map indicates a quarry existed beneath most of the IPC site. Later aerial photographs show those portions of the quarry under the site being completely filled by 1943.

The closest residential area to the IPC site is located approximately 600 feet to the north. Groundwater flow is generally to the southwest to west southwest towards the Rock River. Other residential areas are located approximately 2,700 feet to the east of the site, and 2,300 feet to the southeast. Blackhawk Park is located approximately 700 feet to the northwest of the site. None of these areas have been impacted by the IPC site.

The IPC site is surrounded by numerous industrial facilities. The Gunite Foundry, located northeast of the site, has been in operation for at least 80 years. A pond located immediately north of the IPC site had been used by the foundry for the discharge of storm water and cooling water from casting operations. At the time of the Remedial Investigation (RI) field activities, the pond was still receiving some discharge from the Foundry and contained a considerable volume of water. Since that time, an independent waste disposal company has acquired the property, and the foundry stopped discharging to the pond. The disposal company has been using the property to store construction equipment, and has been slowly filling the pond with what appears to be construction debris. The pond is now dry, filled, and can no longer be considered a significant environment feature.

A former pet food plant, located immediately southwest of the site, processed meat and produced pet food from the turn of the century until the 1980s. Several areas on the property may have been excavated and then filled with solid fill materials.

The Peoples Avenue Landfill is located immediately southeast and south of the site. This property was originally a sand and gravel quarry. The City of Rockford (the City) used the quarry for waste disposal from 1942 until 1972, depositing residential, commercial and industrial wastes. Methane gas generated by the landfill was detected in the basement of the adjacent pet food plant. Venting pipes constructed later within the landfill alleviated the gas problem at the plant.

In 1957, the City installed a public supply well, Municipal Well No. 14, near the southeast corner of the Peoples Avenue Landfill. This well was abandoned in 1971, prior to the start of the IPC operations, because of deteriorating water quality. Significant increases in chloride, manganese, sodium, ammonia, alkalinity, hardness and dissolved minerals were found. The deteriorating water quality was attributed to the landfill. Furthermore, the pet food plant had four wells prior to 1966. In 1965, taste and odor problems became apparent in the well water. The deterioration in water quality was believed to be the result of contamination by the adjacent Peoples Avenue Landfill.

The former Mattison Machine Works is located approximately 1,000 feet northeast (i.e., up-gradient) of the IPC site. In 1995, Illinois EPA records indicate that perchloroethylene (PCE) was present in groundwater beneath the facility. Ongoing monitoring by Mattison Machine Works indicated that a plume of volatile organic compounds (VOCs), including PCE, trichloroethylene (TCE), and 1,1,1-trichloroethane (TCA), was passing beneath the Mattison property from another up-gradient source. The maximum detected VOC concentrations included PCE at 10,600 ug/l; TCE at 1,500 ug/l; and TCA at 800 ug/l. It is important to note that these concentrations are significantly greater than the concentrations of these same constituents in groundwater beneath the IPC site.

Of particular relevance to the remedial action described in the Record of Decision (ROD), is the fact that the IPC site is encompassed by the much larger Southeast Rockford Study Area. The Southeast Rockford Groundwater Contamination (SER) site began with the discovery of VOCs in groundwater within a residential area of nearly two square miles. That discovery prompted the United States Environmental Protection Agency (U.S. EPA) to ultimately extend water mains and connect 526 residences to City water at a cost of approximately $4 million. The SER site was then added to the National Priorities List (NPL). After further Illinois EPA study, the SER site was expanded to a ten square mile study area which incorporates almost 20% of the City and includes the IPC site. Studies have since indicated the widespread presence of chlorinated solvents in groundwater within this ten square mile area, in concentrations varying from less than 10 ppb to over 10,000 ppb. As a result of the widespread groundwater contamination, the City closed several municipal wells in this general area.

On September 29, 1995, the Illinois EPA issued a ROD which addressed groundwater contamination at the SER site. The ROD defined the SER site boundary as the area within the 10 ug/l contour line of the main VOC plume (approximately 1,200 feet southeast of the IPC site at the closest point). The ROD was selected pursuant to Section 121 of CERCLA, among other authorities, and U.S. EPA Region 5 concurred with this ROD. It must be noted, however, that the Illinois EPA and the U.S. EPA had not independently investigated groundwater conditions in the general up-gradient vicinity of the IPC site which, as noted earlier, exhibited elevated concentrations of VOCs.

Within the SER site, the Illinois EPA selected groundwater use restrictions as the appropriate groundwater response action. The selected response action includes groundwater monitoring for at least 205 years, installation of water mains in the affected areas, connecting additional residences and businesses to City water, and implementation of institutional controls. The Illinois EPA further selected monitoring natural attenuation as the remedial action for the groundwater contaminant plume.

The IPC site is located approximately 1,600 feet east of the Rock River, outside the limits of the 500-year floodplain. The site is generally flat, and prior to the installation of the engineered barrier there was little runoff from the property. Most surface water (rainwater and snow-melt) accumulated in shallow puddles and eventually evaporated or infiltrated into the subsurface soils. In areas surrounding the site, surface water drains to storm sewer catch basins.

Fill is present across most of the site and extends to depths of up to 46 feet. Most of the on-site fill consists of fine black sand believed to be foundry sand. The fill also includes wood, glass, concrete, brick and slag. Deposits of medium to coarse sand, and sand and gravel occur beneath the fill. These out-wash deposits extend to a depth of about 100 feet. Firm to very dense silt, clayey silt or silty clay layers are interbedded within the sand and gravel deposits in the site vicinity. The bedrock surface is approximately 150 to 200 feet below groundwater surface.

As the primary sources of contamination had been previously removed, the following conceptual site model for soils and groundwater was developed and used for the Remedial Investigation (RI) and carried through the Baseline Risk Assessment. Terrestrial and aquatic biotas were not considered at risk from the site and were not carried forward. Surface soil, sub-surface soil, sediment in the adjacent quarry pit, and groundwater were investigated during the sampling portion of the RI which was conducted in 1993 and 1994. As no ongoing air releases were occurring at the site, but were possible during past operation of the incinerator, sampling of off-site surface soils was conducted to assess impacts; none were found. A total of 23 new or existing shallow and deep monitoring wells were utilized to assess site impacts on groundwater. The near-surface unconfined aquifer is the aquifer of concern; consequently, monitoring wells were not installed in the deep aquifers located below the confining silty stratum at this site. The general direction of groundwater flow is southwest to west southwest towards the Rock River. The groundwater flow velocity in the surficial aquifer in the site study area ranges from 0.75 to one foot per day (300-400 feet per year). One of the most notable outcomes of the groundwater portion of the investigation was verification that a plume of chlorinated volatile organic compounds, at substantially higher concentrations than occur on site is approaching the site from the north east. It was estimated in 1995 that this plume was expected to reach the IPC site in 15 to 45 years.

Specifically to assess contaminated deep and shallow groundwater impacts on the Rock River two (2) shallow and two (2) deep monitoring wells were installed down-gradient of the site, in close proximity to the river. Only vinyl chloride (maximum detected concentration, 6 ug/l) and manganese (maximum detected concentration, 3,240 ug/l) were identified at levels above Maximum Contaminant Level (MCLs). Neither of these contaminants could be fully attributed to the IPC site because of the close proximity and up-gradient

location of Peoples Avenue Landfill and the nearly ubiquitous nature of these two contaminants in the Southeast Rockford area.

Groundwater supplies in Winnebago County are obtained from aquifers in both the glacial drift deposits and bedrock. Principal aquifers within the glacial drift are generally limited to major bedrock valleys with thick sand and gravel deposits. Although there are industrial and municipal wells which draw water from the drift aquifers, the Galena-Platteville bedrock formation is the primary source of potable groundwater for domestic use.

Water supplies delivered by pipe mains are available from the public utility for the entire IPC site RI study area, including the residences north of the site and Blackhawk Park. A well inventory indicated that all recorded wells located down-gradient of the site have either been abandoned or no longer exist and that there are no consumers of well water who might be impacted by groundwater contamination at the site and contamination originating up-gradient of the site.

No wetland areas are threatened as a result of IPC site activities or the groundwater plume which extends beyond the property boundary, and no other critical habitats have been identified. The ecological risk assessment concluded that contaminant levels detected at the site are unlikely to pose a high ecological risk to local flora and fauna; no adverse impacts were observed at the site during a reconnaissance; and no state or federal threatened or endangered species are likely to be affected by the site contaminants.

There is no evidence to indicate that Resource Conservation & Recovery Act (RCRA) listed wastes were handled at the facility during its operation and no characteristic wastes were left on-site following the previously discussed removal actions.

Land and Resources Use

IPC's operation at the site included transporting and bulking of waste oils, solvents and cyanide waste for incineration, resale and/or off-site disposal. Also, during IPC's operation of the site, support service was provided to sister companies; a portable toilet business and a Roto-Rooter franchise. Prior to IPC's operations, the site was extensively quarried and backfilled with various materials including a large quantity of foundry sand, following filling of the quarry and immediately prior to IPC's operations, the site was the location of an auto salvage yard.

The ROD for the site concluded that the land occupied by the IPC site would be available for development, consistent with the institutional controls (IC) component of the remedy, immediately following completion of the impermeable barrier. The required ICs included: prohibiting a) residential development of the site, b) all public access except for general industrial purposes, c) all unpermitted treatment, storage or disposal of waste on the site, and d) all uses of groundwater at the site. At the time of this five year review, there is no use of the site.

Initial Response

The Illinois EPA, U.S. EPA and other state and federal agencies began to investigate and evaluate the IPC site conditions in 1979. In 1985, a preliminary field investigation of the site and the adjacent Peoples Avenue Landfill was conducted, and in 1987, the site was evaluated under the Hazard Ranking System (HRS). The IPC site received an HRS score of 46.01 and was placed on the National Priorities List (NPL) on June 24, 1988.

In 1991, private parties negotiated a Partial Consent Decree with the Illinois EPA and the Attorney General of the State of Illinois. The Partial Consent Decree required that the private parties undertake a Remedial Investigation/Feasibility Study (RI/FS) at the Site. The RI Work Plan was completed in 1992, and the field investigations were conducted in 1993 and 1994. The final RI Report was submitted in 1997.

Significant removal actions occurred at the IPC site on two different occasions. The incinerator was removed between 1976 and 1979. IPC conducted a partial cleanup of the site in 1979 and 1980, in response to an Illinois Pollution Control Board Order. During this partial cleanup of the site, several bulk tankers containing wastes, approximately 180 cubic yards of material from the surface impoundment and approximately 120 cubic yards of cyanide contaminated material, were removed. Reportedly, 1,200 drums of contaminated materials were also removed from the site during this cleanup. The surface impoundment was backfilled and graded.

On August 6, 1991, U.S. EPA issued a Unilateral Administrative Order (UAO) to IPC and a group of PRPs to conduct additional removal activities at the site. Beginning in 1992, the Respondents to the UAO fenced the site, removed over 1,400 tons of solid and hazardous waste (including visibly stained soils), demolished and removed all above-ground and underground tanks and significant physical structures, installed a clay cover over the former impoundment, and substantially cleared the site.

These removal actions eliminated more than 2.9 million pounds of solid and hazardous waste. These materials constituted principal threats at the site, and were removed, treated, destroyed or disposed of prior to the initiation of the RI/FS.

Basis For Taking Action

The remedial action described in the ROD addresses remaining soil and groundwater contamination at the site. The ROD required the implementation of the SVE design pilot test if the Five Year Review did not find statistically significant decreases (which cannot be attributed to up-gradient sources) in on-site and down gradient concentrations of trichloroethene and 1,1,1-trichloroethane in shallow groundwater. Groundwater sampling after the engineered barrier was constructed found seven (7) VOCs (1,1,1-trichloroethane, trichloroethene, 1,1-dichloroethene, tetrachloroethene, 1,1-dichloroethane, vinyl chloride, and cis-1,2-dichloroethene) in the groundwater. The PRPs proposed to delete the last three VOCs since their concentration in the IPC wells may be biased by the presence of landfill gas from an off-site source. While the PRPs may be correct regarding the off-site influence, there is no definitive proof of such influence so all seven (7) VOCs are monitored. The risks identified in the IPC risk assessment relate to three exposure pathways that present current and potential risks to human health above EPA's acceptable risk range:

1. dermal contact with and/or ingestion of contaminants in soil;
2. inhalation of contaminants in soil (i.e. dust) and volatilization of contaminants from soil to ambient air followed by inhalation;
3. ingestion of contaminants in groundwater or the inhalation of contaminants following volatilization from water during showering of bathing.

IV. Remedial Actions

The ROD for the IPC site was signed September 28, 1999. The selected remedy was chosen to meet the following remedial action objectives (RAOs) stated in the ROD:

1. Mitigate the potential risk of exposure to on-site workers and possible trespassers via dermal contact, ingestion or inhalation of hazardous substances from surface soils to protective levels.
2. Mitigate the potential for incremental releases of hazardous substances from site soils to area groundwater.

3. Restore the aquifer to drinking water standards within a time frame consistent with the regional approach for nearly ubiquitous chlorinated VOC contamination.

The selected remedy for the IPC site, which is intended to meet the above RAOs, was Institutional Controls and Engineered Barrier with Monitored Natural Attenuation of Groundwater with the Soil Vapor Extraction (SVE) component as a contingent remedial option. If during each Five Year Review cycle, statistically significant decreases in on-site and down gradient concentrations of trichloroethene and 1,1,1-trichloroethane in shallow groundwater are not verified (which cannot be attributed to up-gradient sources), the SVE design pilot test will be implemented. The final decision to implement the SVE remedy component will be based on performance of the SVE design pilot test indicating that the SVE remedy can be safely implemented considering the landfill gas concerns relative to the adjacent Peoples Avenue Landfill.

The institutional controls call for maintenance of the existing Declaration of Restriction already filed with the Winnebago County Recorder which contains the following pertinent language "The following restrictions are hereby placed upon the use of the aforesaid real property (also described herein as "the site") and shall run with the land, so as to prohibit to-wit: a) all residential development of the site; b) all public access to the site except for general industrial use; c) all unpermitted treatment, storage or disposal of waste on the site; and d) all uses of groundwater at the site; all of the above except as required by the Illinois Environmental Protection Agency or the United States Environmental Protection Agency." This Declaration of Restriction was filed March 10, 1995. The remedy also called for maintaining the existing site security fence to enforce the Declaration of Restriction and supplement existing warning signs around the site perimeter discouraging trespassers and noticing a prohibition of unauthorized excavation.

Groundwater contamination beneath the IPC site will be remediated through monitored natural attenuation and the remedy intends to restore the ground water to drinking water standards. The Illinois EPA and U.S. EPA adopted this approach for the SER, noting that the aquifer will not be actively, but rather passively, restored to drinking water quality. Illinois EPA and U.S. EPA noted that passive restoration will occur over an extended period of time, with only a small incremental reduction of groundwater contaminants expected on an annual basis.

Following completion of construction activities, the IPC site will be inspected on a quarterly basis to document the integrity of the existing site security fence and engineered barrier, the effectiveness of the institutional controls, and the condition of the monitoring well system. Any damage to the barrier will be repaired. Results of the inspections will be documented in inspection reports.

Remedy Implementation

On July 15, 2005 the State of Illinois moved to lodge a Consent Decree among Illinois and the Settling Defendants (or Potential Responsible Parties (PRPs)) with the United States District Court for the Northern District of Illinois Western Division. This Consent Decree required the Settling Defendants to remediate the IPC site consistent with the ROD for the site. The implemented remedy includes:

1. Institutional Controls
2. Installation of an engineered barrier over the site
3. Monitored natural attenuation of site contaminants
4. Groundwater monitoring
5. Quarterly and annual inspection of the site
6. Contingent SVE enhancement

The engineered barrier was installed to prevent direct contact with site contaminants, serve as an impermeable barrier to limit exposure to soil vapors, prevent fugitive dust emissions, and reduce storm-water infiltration through site fill, thereby reducing potential releases to groundwater. The general design of the engineered barrier included the following:

1. Clearing and grubbing the site.
2. Re-grading the site for the installation of an engineered barrier.
3. Construction of an engineered barrier including:
    a. Placement of a high-density polyethylene (HDPE) flexible membrane liner (FML) with a nominal thickness of 40-mil.
    b. Placement of a geotextile layer to provide protection between the FML and overlaying aggregate drainage layer.
    c. Drainage layer consisting of coarse aggregate at a nominal thickness of 12 inches to support drainage of surface water that could penetrate the asphalt cap.
    d. Bituminous cement (asphalt) layer at a nominal thickness of eight inches.
4. Adequate collection system for storm water runoff.
5. Removal of six site groundwater monitoring wells and installation of six new wells on the site.

Remedial Action started April 10, 2006. All on-site construction was completed August 23, 2006, and a Preliminary Site Closeout Report (PCOR) was completed for the site on September 6, 2006. Since the completion of the engineered barrier, the site has been inspected quarterly. No significant changes to the site have been found by these inspections which include any evidence of changed exposure assumptions or deterioration of the remedy itself.

Two groundwater monitoring wells were required to be installed off site and in close proximity to the river. Due to difficulties in obtaining site access, these wells were not installed until March 2009. After the installation of the groundwater monitoring wells, the wells were sampled quarterly for four quarters followed by semiannual sampling. In general, the sampling has found that the down gradient wells on the site have lower concentrations of contaminants than the up gradient site wells, and the wells by the river have concentrations much less than the site wells.

Institutional Controls

Institutional Controls (ICs) are required to ensure the protectiveness of the remedy. ICs are non-engineered instruments, such as administrative and/or legal controls, that help minimize the potential for exposure to contamination and protect the integrity of the remedy. Compliance with ICs is required to assure long-term protectiveness for any areas which do not allow for unlimited use or unrestricted exposure (UU/UE). It is a generally accepted practice to provide multiple layers of ICs, including proprietary controls (e.g. covenants), governmental controls (e.g. zoning, ordinances and permitting programs), enforcement controls (consent decree) and information controls (e.g. deed notices) as appropriate to the respective site.

The ROD identified the need for ICs to protect the engineered barrier, inform potential workers of hazards, mitigate potential risk of exposure to humans via dermal contact, ingestion, or inhalation of hazardous substances from surface soil; prevent incremental release of hazardous substances to groundwater and restore the groundwater to drinking water standards within the time frame which is consistent with the regional approach. Preventing uses of contaminated groundwater was also a potential risk that was thought to be dealt with by existing state and local prohibitions of groundwater use.

The ROD required the following ICs:

1. Maintain the existing Declaration of Restriction already filed with the Winnebago County Recorder which contains the following pertinent language "The following restrictions are hereby placed upon the use of the aforesaid real property (also described herein as "the site") and shall run with the land, so as to prohibit to-wit: a) all residential development of the site; b) all public access to the site except for general industrial use; c) all unpermitted treatment, storage or disposal of waste on the site; and d) all uses of groundwater at the site; all of the above except as required by the Illinois Environmental Protection Agency or the United States Environmental Protection Agency." This Declaration of Restriction was filed March 10, 1995.
2. Attach additional Declaration(s) of Restriction to the property noting the presence of hazardous substances on the site and the requirement that no excavations or other penetrations of the impermeable barrier be allowed unless: (1) the construction workers are trained consistent with 29 CFR 1910.120 ("OSHA") and work under an adequate health and safety plan; (2) all soil spoil material be managed consistent with a soil management plan consistent with all applicable state and federal laws applicable at the time and that this soil management plan be specific to any planned on-site construction activity, and each specific soil management plan be endorsed by a person qualified to write such plans, and each specific soil management plant be provided to the Illinois EPA 30 days prior to initiation of construction activity; (3) the engineered barrier be maintained consistent with an inspection, maintenance, and corrective action plan to be developed as part to the remedial design and approved by the Illinois EPA. An Easement and Second Declaration of Restrictions was signed on February 16, 2009, and recorded on February 23, 2009. The Easement and Second Declaration of Restrictions references the 1995 Declaration of Restriction and the Consent Decree that required the Second Declaration for: (1) a right of access to the State, the Settling Defendants and others for the purpose of conducting activities related to the Consent Decree; (2) a notice of hazardous substances at the Site; (3) a prohibition on excavations or other penetrations at the Site without regulatory compliance; and (4) a requirement to maintain the engineered barrier consistent with the corrective action plan developed as part of the remedial design approved by the Illinois EPA.
3. Implement a Groundwater Management Zone for the area of site impacted groundwater.
4. Maintain the existing site security fence to enforce item 1b of the above Declaration of Restriction.
5. Supplement existing warning signs around the site perimeter discouraging trespassers and noticing a prohibition of unauthorized excavation.
6. Employing existing City of Rockford ordinances and State requirements that restrict the installation of potable groundwater wells within contaminated groundwater, and within minimum setback zones from primary sources. Compliance with these ordinances and State requirements will be reviewed as part of U.S. EPA's mandatory Five Year Review of CERCLA sites.
7. Support Illinois EPA's public education efforts in the SER Area. The ROD for the SER site indicates that the Illinois EPA will rigorously educate the public about the potential risks associated with using contaminated groundwater in southeast Rockford, and will discourage the use of groundwater for drinking and bathing.

Table 2: Institutional Controls

Media, remedy components & areas that do not support UU/UE based on current conditions	IC Objective	IC Instrument Implemented or Planned
On-site soils, on-site ground water	1) prohibit residential development of the site 2)prohibit all access to the site except for general industrial use 3) prohibit all unpermitted treatment, storage or disposal of waste on the site 4) prohibit all uses of ground water at the site	Declaration of Restriction with Winnebago County Recorder, signed March 10, 1995
On-site soils, on-site ground water	1) provide notice of hazardous materials on site and the requirement that no excavations or other penetrations of the impermeable barrier be allowed unless the construction workers are trained consistent with 29 CFR 1910.120 ("OSHA") and work under an adequate health and safety plan 2) provide notice that all soil spoil material must be managed consistent with a soil management plan consistent with all applicable state and federal laws applicable at the time and that this soil management plan be specific to any planned on-site construction activity 3) maintain the engineered barrier	Easement and Second Declaration of Restrictions with Winnebago County Recorder, signed February 16, 2009
On-site groundwater	Ground Water Management Zone	Ground Water Management Zone (planned)
On-site groundwater	restrict installation of potable ground water wells within contaminated ground water	City of Rockford ordinance (planned)

In a letter dated April 27, 2010, Illinois EPA required the Settling Defendants to complete and submit an institutional control study. The Settling Defendants agreed to perform the study and the study was submitted to the Illinois EPA and is dated November 19, 2010. Illinois EPA will evaluate the IC Study to determine whether it needs to be supplemented, and whether the institutional controls identified for the site will be protective in the long-term and run with the land. Illinois EPA will also consider if an environmental covenant under the Uniform Environmental Covenants Act (UECA) should be implemented. The Illinois UECA, which can be found at 765 ILCS 122, became effective on January 1, 2009 and provides numerous benefits. Properly drafted UECA covenants will ensure that the restrictions are enforceable and run with the land to ensure long-term site stewardship. The UECA specifically provides that an owner of a property may enter into a restrictive covenant and also be a "holder" of the covenant with the right to enforce it against a third party even after it sells the property. Also, a plan for long-term stewardship of the site may be needed to ensure effective ICs are maintained, monitored and enforced.

System Operations/Operation & Maintenance (O&M)

Since completion of construction and the installation of the groundwater monitoring wells, the activities for the site have included:

1. Quarterly monitoring and inspection of the site.
2. Quarterly groundwater sampling for four quarters and then semiannual sampling.
3. An annual report on the site with the groundwater sampling results.

No significant changes to the site have been found during the inspections and the groundwater sampling results indicate lower contaminant concentrations down gradient of the site. The Settling Defendants were unwilling to provide specific O&M costs, but they did state that there have been no significant problems with the site. The O&M costs are consistent with the estimates in the ROD which were $87,155 for year 1 and a total present worth cost for O&M of $1,343,000.

V. Progress Since the Last Review

This is the first Five Year Review for this Site.

VI. Five Year Review Process

Administrative Components

The Illinois EPA is the lead agency for this Five Year Review. The support agency is the U.S.EPA. The U.S. EPA and the Settling Defendants were notified via letter dated April 27, 2010 of initiation of the Five Year Review. The IPC Five Year Review Team was led by Doyle Wilson of Illinois EPA and included Howard Caine of U.S. EPA.

This Five Year Review consisted of the following activities; a review of relevant documents (see Attachment 3); interviews with representatives of the Settling Defendants; and a site inspection. In addition, a notice regarding the review was placed in the local newspaper. The completed report will be placed in the information repository. Notice of its completion will be placed in the local newspaper.

Community Notification and Involvement

A notice was published in the Rockford Register Star on July 7, 2010, stating that a Five Year Review was being conducted at the site. The notice announced the start of the Five Year Review and invited citizens to tell

the Illinois EPA of any concerns they had on the site. Since the July 7, 2010 notice, there has been no member of the community that has voiced any interest or opinion concerning the Five Year Review process.

Document Review

The list of the documents that were reviewed for this Five Year Review can be found in Attachment 3.

Data Review

Per the ROD, the Five Year Review was to evaluate the down gradient concentrations of trichloroethene and 1,1,1-trichloroethane compared to their up gradient concentrations. Groundwater monitoring data from the annual reports were reviewed. The dates of the reports were: August 28, 2008, August 6, 2009, June 1, 2010, and September 1, 2010. Primary emphasis was given to the latest report. As noted in the ROD, the IPC site is surrounded by significant industrial facilities including the Peoples Avenue Landfill located immediately southeast of the IPC site, and there are several distinct plumes that will migrate through the site over an extended period of time. The ROD also stated that active restoration of groundwater is not practicable in light of the ubiquitous nature of groundwater contamination in the region. The monitored natural attenuation for the groundwater contamination is also consistent with remedial action objectives established for the adjacent SER NPL site. The remedy establishes a RAO of restoring ground water to drinking water standards.

Total VOC loads in the three on-site up gradient wells have been consistently higher than in the three on-site down gradient wells. The total VOC load in the three on-site up gradient wells was 183 ug/L higher than the total VOC load in the three on-site down gradient wells in September 2007. This difference increased to 294 ug/L in June 2010. The sum of the concentration of trichloroethene (TCE) and 1,1,1-trichloroethane (TCA) in the on-site up gradient wells has increased from 530 ug/L to 547 ug/L which could indicate the arrival of an off-site plume entering the site. During the same time period, the sum of TCE and 1,1,1-TCA in the on-site down gradient wells has decreased from 324 ug/L to 269 ug/L. There has been no indication that the site has impacted the groundwater quality in the river wells. Based on these comparisons, there is evidence that groundwater quality has improved down gradient of the site compared to up gradient of the site. The time trends of contaminant concentrations are shown in Attachment 5. Groundwater monitoring results are in Table 3.

Table 3: Groundwater Monitoring Results- December 2008 Through July 2010

Well	Location	Parameter	Units	Dec-08	Mar-09	Jun-09	Sep-09	Dec-09	Jun-10
MW1	Downgradient	1,1,1-Trichloroethane	Ug/L	9.4	NA	5*	NA	11	5*
MW1	Downgradient	1,1-Dichloroethane	Ug/L	13	NA	14	NA	14	16
MW1	Downgradient	1,1-Dichloroethene	Ug/L	14	NA	9.5	NA	12	11
MW1	Downgradient	Cis-1,2-Dichloroethene	Ug/L	230	NA	170	NA	160	130
MW1	Downgradient	Tetrachloroethene	Ug/L	5*	NA	5*	NA	5*	5*
MW1	Downgradient	Trichloroethene	Ug/L	45	NA	20	NA	52	20
MW1	Downgradient	Vinyl Chloride	Ug/L	7.3	NA	6.9	NA	10	16
MW2	Downgradient	1,1,1-Trichloroethane	Ug/L	21	NA	15	NA	25	22
MW2	Downgradient	1,1-Dichloroethane	Ug/L	5*	NA	5*	NA	5*	5*
MW2	Downgradient	1,1-Dichloroethene	Ug/L	17	NA	13	NA	22	23
MW2	Downgradient	Cis-1,2-Dichloroethene	Ug/L	52	NA	37	NA	92	58
MW2	Downgradient	Tetrachloroethene	Ug/L	23	NA	17	NA	34	33
MW2	Downgradient	Trichloroethene	Ug/L	230	NA	150	NA	210	200
MW2	Downgradient	Vinyl Chloride	Ug/L	4.5	NA	2*	NA	2*	2*
MW3	Upgradient	1,1,1-Trichloroethane	Ug/L	22	NA	21	NA	27	24
MW3	Upgradient	1,1-Dichloroethane	Ug/L	5*	NA	11	NA	5*	5.2
MW3	Upgradient	1,1-Dichloroethene	Ug/L	17	NA	17	NA	21	23
MW3	Upgradient	Cis-1,2-Dichloroethene	Ug/L	50	NA	74	NA	58	56
MW3	Upgradient	Tetrachloroethene	Ug/L	25	NA	28	NA	38	40
MW3	Upgradient	Trichloroethene	Ug/L	230	NA	170	NA	240	210
MW3	Upgradient	Vinyl Chloride	Ug/L	2*	NA	2*	NA	2*	*2
MW4	Downgradient	1,1,1-Trichloroethane	Ug/L	21	NA	17	NA	18	17
MW4	Downgradient	1,1-Dichloroethane	Ug/L	13	NA	27	NA	22	20
MW4	Downgradient	1,1-Dichloroethene	Ug/L	14	NA	11	NA	9.8	11
MW4	Downgradient	Cis-1,2-Dichloroethene	Ug/L	190	NA	180	NA	160	150
MW4	Downgradient	Tetrachloroethene	Ug/L	5*	NA	5*	NA	5*	5*
MW4	Downgradient	Trichloroethene	Ug/L	5*	NA	5*	NA	5*	5*
MW4	Downgradient	Vinyl Chloride	Ug/L	65	NA	74	NA	67	76
MW5	Upgradient	1,1,1-Trichloroethane	Ug/L	35	NA	32	NA	39	27

MW5	Upgradient	1,1-Dichloroethane	Ug/L	8.8	NA	6	NA	6.6	5.5
MW5	Upgradient	1,1-Dichloroethene	Ug/L	27	NA	23	NA	26	23
MW5	Upgradient	Cis-1,2-Dichloroethene	Ug/L	250	NA	180	NA	140	120
MW5	Upgradient	Tetrachloroethene	Ug/L	29	NA	34	NA	42	37
MW5	Upgradient	Trichloroethene	Ug/L	200	NA	180	NA	230	160
MW5	Upgradient	Vinyl Chloride	Ug/L	7.7	NA	8.8	NA	7.2	5.7
MW6	Upgradient	1,1,1-Trichloroethane	Ug/L	22	NA	31	NA	37	31
MW6	Upgradient	1,1-Dichloroethane	Ug/L	6.8	NA	5*	NA	6.7	5.9
MW6	Upgradient	1,1-Dichloroethene	Ug/L	15	NA	22	NA	24	25
MW6	Upgradient	Cis-1,2-Dichloroethene	Ug/L	200	NA	210	NA	190	180
MW6	Upgradient	Tetrachloroethene	Ug/L	6.1	NA	15	NA	5*	24
MW6	Upgradient	Trichloroethene	Ug/L	32	NA	73	NA	150	95
MW6	Upgradient	Vinyl Chloride	Ug/L	24	NA	25	NA	18	25
MW8	Downgradient	1,1,1-Trichloroethane	Ug/L	NA	5*	5*	6.1	11	5*
MW8	Downgradient	1,1-Dichloroethane	Ug/L	NA	5*	5*	6.8	12	5*
MW8	Downgradient	1,1-Dichloroethene	Ug/L	NA	5*	5*	5.1	7.1	5*
MW8	Downgradient	Cis-1,2-Dichloroethene	Ug/L	NA	11	5*	18	29	10
MW8	Downgradient	Tetrachloroethene	Ug/L	NA	5*	5*	5*	5*	5*
MW8	Downgradient	Trichloroethene	Ug/L	NA	27	14	36	75	29
MW8	Downgradient	Vinyl Chloride	Ug/L	NA	2*	2*	2*	2*	2*
MW9	Downgradient	1,1,1-Trichloroethane	Ug/L	NA	5*	5*	5*	5*	5*
MW9	Downgradient	1,1-Dichloroethane	Ug/L	NA	5*	5*	5*	5*	5*
MW9	Downgradient	1,1-Dichloroethene	Ug/L	NA	5*	5*	5*	5*	5*
MW9	Downgradient	Cis-1,2-Dichloroethene	Ug/L	NA	5*	5*	5*	5*	5*
MW9	Downgradient	Tetrachloroethene	Ug/L	NA	5*	5*	5*	5*	5*
MW9	Downgradient	Trichloroethene	Ug/L	NA	5*	5*	5*	5*	5*
MW9	Downgradient	Vinyl Chloride	Ug/L	NA	2*	2*	2*	2*	2*

NA- Not Applicable
*- Qualifier U- Not Detected

With the approaching off site contamination plumes and the potential impact on the site from the adjacent Peoples Landfill, the down gradient VOC concentrations may not always be less than the up gradient VOC concentrations, and it may not be possible to differentiate between the concentrations being contributed to the groundwater from the site and from the off site plumes. Per the ROD, each Five Year Review is to evaluate the concentrations of TCE and 1,1,1-TCA in the up gradient and down gradient shallow groundwater and

implement the SVE design pilot test if the down gradient concentrations have not statistically decreased unless an up gradient source has impacted the results. The results of this review show a decrease in the concentrations of TCE and 1,1,1- TCA in the down gradient wells so the contingent SVE design pilot test is not needed at this time.

Site Inspection

A Site inspection was completed on September 22, 2010. Participants and affiliations were as follows:

Michael Hirt	Environmental Information Logistics, LLC	PRP Group representative
Brian McQueen	Cubeno Environmental Field Services	PRP Group representative
Howard Caine	U.S.EPA	Remedial Project Manager
Doyle Wilson	Illinois EPA	NPL Unit (Project Manager)

The inspection was conducted according to the checklist provided in Appendix D of the Comprehensive Five-Year Guidance provided by the U.S. EPA. The attendees performed a walkover of the site to observe the condition of the site including the asphalt cover, security fence, site groundwater wells, and the river groundwater wells. The completed checklist is in Attachment 6. The asphalt cover was in good condition. The groundwater wells were locked and secure. The security fence was locked, and in general, good condition. There were a few places where the fence was raised off the ground slightly, but not enough to allow human access to the site. No erosion was observed around the perimeter of the site. A representative of the PRP Group inspects the site quarterly. No issues requiring immediate attention were identified.

Interviews

During the walkover of the site, a discussion was held with the PRP Group representatives. Mr. McQueen performs the quarterly inspections and groundwater sampling. Mr. Hirt compiles the groundwater monitoring data and writes the annual reports. They indicated that no major issues have been identified at the site that would affect site protectiveness to the public.

A separate telephone interview was held with Scott Moyer (Manager, Remediation) of the United Technologies Corporation which is a member of the PRP Group. Mr. Moyer indicated that the site is very routine with no issues other than the approaching off-site contamination plume. In the future, routine maintenance items would likely include a seal coat on the asphalt and some vegetation control around the security fence.

VII. Technical Assessment

Question A: Is the remedy functioning as intended by the decision documents?

Yes. Review of the groundwater monitoring results, and the site inspection provide evidence that the selected engineered remedy is functioning as intended by the ROD. There is no evidence of Site groundwater use. An IC Study was submitted for review by Illinois EPA to ensure long-term protectiveness.

Residences in the vicinity of the landfill are connected to municipal water so no exposures are possible via the contaminated drinking water pathway.

The monitoring well network that is in place on the Site property provides the data needed to assess the effectiveness of the selected remedy.

The site is fenced with a chain link fence. Warning signs were observed at the site at the time of the inspection. There haven't been any signs of trespassing on the site.

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of the remedy still valid?

Yes. There have been no changes in the physical conditions of the site that would affect the protectiveness of the selected remedies at these sites. Neither has there been any substantive change in the use of the property during the last five years. There have been no changes in land use near the site, nor are changes expected in the near future. There have been no newly observed species or ecologic settings. Potential exposure scenarios remain the same.

In general, VOC concentrations in groundwater are less down gradient than up gradient at the IPC site. The selected remedy has been and continues to be effective in protecting human health and the environment.

Question C: Has any other information come to light that could call into question the protectiveness of the remedies?

No. No new information has come to light that would call into question the protectiveness of the selected remedy at the IPC site. There have been no newly discovered ecological risks. There have been no significant impacts from natural disasters.

Summary of Technical Assessment:

Based on the data reviewed, the site inspection and the interviews, the remedy for the IPC site is functioning as intended by the ROD. There have been no changes in the physical conditions or exposure scenarios of the site that would affect the protectiveness of the remedy. Based on the groundwater data described in Section VI above, this review concludes that there is no current need to implement the Contingent Remedy of the SVE design pilot test. The IC Study was submitted to the Illinois EPA on November 19, 2010 and will be reviewed by the Illinois EPA.

VIII. Issues

The issues in Table 4 affect the future protectiveness of the remedy.

Table 4: Issues

Issue	Currently Affects Protectiveness	Affects Future Protectiveness
The existing ICs are under evaluation. A review of the institutional controls is necessary to determine if the remedy is functioning as intended with regard to the ICs and to ensure effective procedures are in-place for long-term stewardship at the Site.	No	Yes

The review also noted that the groundwater data collected between the completion of this Five Year Review and the next Five Year Review will continue to be evaluated by Illinois EPA in order to make a determination regarding the contingency in the ROD on the need for a SVE design pilot test. This does not currently affect

protectiveness of the remedy but is an ongoing responsibility in order to assure protectiveness. If data in the future show an increase in groundwater contamination from site sources, the contingent SVE design pilot test remedy will likely need to be implemented.

IX. Recommendations and Follow-up Actions

To maintain protectiveness of the remedy the following recommendations are made:

Table 5: Recommendations and Follow-up Actions

Issue	Recommendations and Follow-up Actions	Party Responsible	Oversight Agency	Milestone Date	Affects Protectiveness (Y/N)	
					Current	Future
The existing ICs are under evaluation. A review of the institutional controls is necessary to determine if the remedy is functioning as intended with regard to the ICs and to ensure effective procedures are in-place for long-term stewardship at the Site.	Evaluate the IC Study submitted by the PRP Group to determine if the existing implemented ICs need to be enhanced.	Illinois EPA	U.S. EPA	September 2011	N	Y

The review also noted that the groundwater data collected between the completion of this Five Year Review and the next Five Year Review will continue to be evaluated by Illinois EPA in order to make a determination with the contingency in the ROD on the need for a SVE design pilot test.

X. Protectiveness Statement

The remedy at the IPC Site is considered protective in the short-term. However, long-term protectiveness will not be achieved until groundwater clean-up standards are met and effective ICs are implemented. Long-term protectiveness also requires compliance with effective ICs which will be ensured by implementing, monitoring, maintaining and enforcing them as well as maintaining the site remedy components. Long-term stewardship must be ensured to verify compliance with ICs.

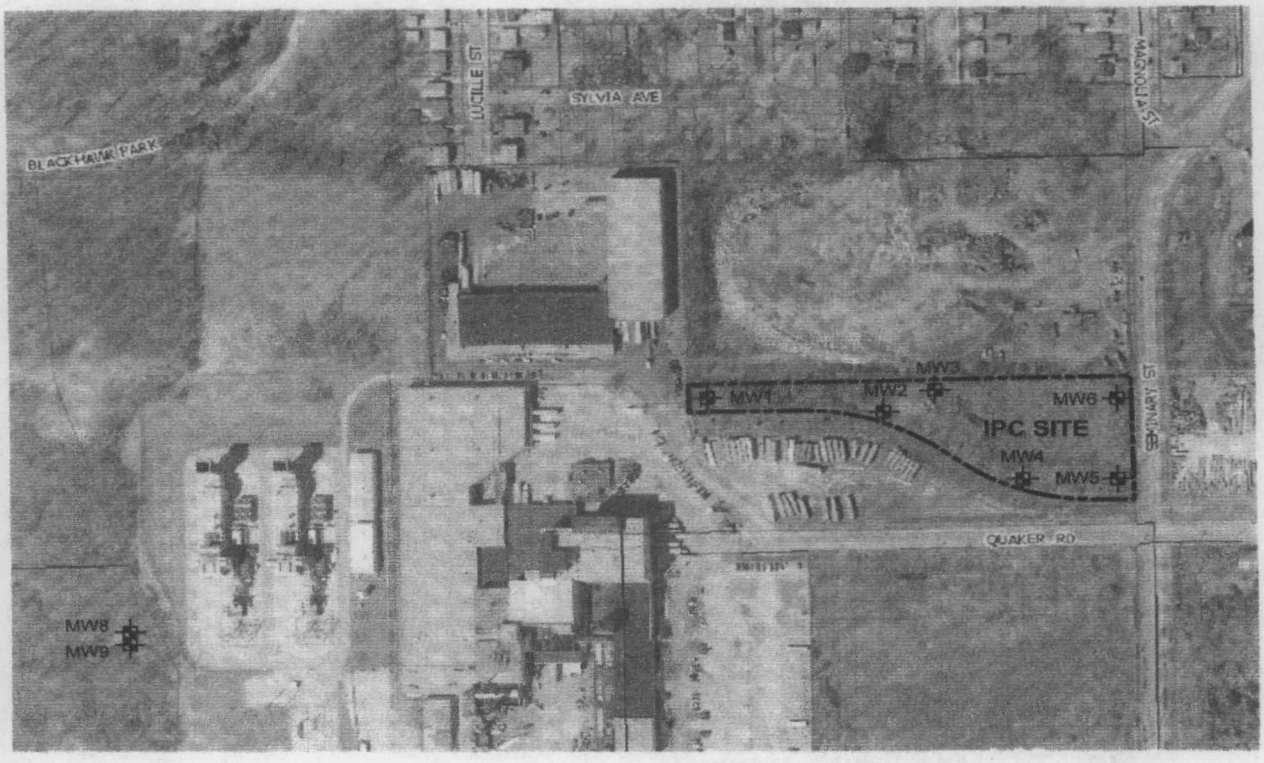
XI. Next Review

The next Five Year Review for the Site is required five years from the approval signature date of this report.

ATTACHMENTS

Attachment 1

Site Map



LEGEND

IPC APPROXIMATE SITE BOUNDARY

LONG-TERM NATURAL ATTENUATION MONITORING WELL LOCATIONS

NOTES

1. AERIAL PHOTO PROVIDED BY WINNEBAGO COUNTY GEOGRAPHIC INFORMATION SYSTEM (WINGIS).

N

0 150' 300'

SCALE: 1" = 300'

PREPARED BY: EIL ENVIRONMENTAL INFORMATION LOGISTICS, LLC

PREPARED FOR: INTERSTATE POLLUTION CONTROL

FIGURE 1
LONG-TERM NATURAL ATTENUATION MONITORING WELL LOCATIONS
INTERSTATE POLLUTION CONTROL
ROCKFORD, ILLINOIS

070309 JULY 2009

Attachment 2

Public Notice Advertisement

ID WORLD ROCKFORD REGISTER STAR | WEDNESDAY, JULY 7, 2010 5A

charges
ary video

THE ASSOCIATED PRESS

a video shot from a U.S. Army
ed at Wikileaks.org and confirmed
ary official, shows a group of men
district of eastern Baghdad just
elicopter on July 12, 2007.

and with "disclosing classified information concerning the national defense with reason to believe that the information could cause injury to the United States."

An internal military investigation concluded that the troops in the helicopters acted appropriately. According to a last year's summary of the results of the inquiry, Reuters employees were likely "intermixed among the insurgents" and difficult to distinguish because of their equipment, the document states.

Former computer hacker Adrian Lamo of Sacramento, Calif., said he alerted the military after Manning confided in him online that he had leaked the video in addition to 260,000 classified diplomatic cables.

Lamo, who provided his account to Wired.com, said that he agonized over the decision

INTERSTATE POLLUTION CONTROL SUPERFUND SITE FIVE YEAR REVIEW

The Illinois Environmental Protection Agency and the U.S. EPA are conducting the required Five-Year Review of the Interstate Pollution Control Superfund site in Rockford, Illinois. This is the first regularly scheduled five-year review of the site following the start of remedial action at the site in April 2006. Such reviews are built in to the Superfund process to determine whether site conditions have changed. Documents regarding this site are available for public review in the 2nd Floor north wing **Rockford Public Library, 215 N. Wyman St., Rockford, IL** (check with the Internet Periodical Desk). The review is expected to be completed by April 2011 and the report will be made available at the Library.

The site was placed on the National Priorities List on June 24, 1988 based on contamination of site soils and groundwater with a variety of heavy metals, volatile and semi-volatile organic chemicals and cyanide. Under a 1989 Unilateral Administrative Order from U.S. EPA the Responsible Parties removed more than 1,400 tons of solid and hazardous wastes from the site.

Following the Removal Action, a Remedial Investigation and Feasibility Study was conducted to determine whether the site still posed a risk either to the environment or human health and to evaluate options for responding to that risk. In 2002 a Record of Decision for the site selected as a remedy. The installation of an Engineered Barrier over the site, Institutional Controls over future uses of the site and nearby groundwater, and monitored natural attenuation of groundwater contamination from the site. Site work commenced in April 2006.

Because the remedy left contamination at the site that would not allow unrestricted exposure, federal statutes require regular Five-Year Reviews of the site to assure that site conditions continue to protect public health and the environment.

The five year review is an opportunity for you to tell the Illinois EPA about site conditions and any concerns you have. You may contact: Stan Black, IEPA Office of Community Relations, P.O. Box 19276, Springfield, IL 62794-9276; Phone: 217/785-1427; Fax: 217/785-7725; E-mail: stan.black@illinois.gov

###

Attachment 3

List of Documents Reviewed

1. Record of Decision for the Interstate Pollution Control, Inc. site, September 28, 1999.
2. Correspondence, Illinois EPA to U.S.EPA, Notification of Five Year Review Start, April 27, 2010.
3. Correspondence, Illinois EPA to PRP Group Representatives, Request for Institutional Control Study, April 27, 2010.
4. Consent Decree for Remedial Design and Remedial Action, People of the State of Illinois vs. Interstate Pollution Control, Inc. Settling Defendants, U.S. District Court for the Northern District of Illinois, Western Division, Civil Action 05-C-50138.
5. Correspondence, Environmental Information Logistics, LLC to Illinois EPA, First Year Annual Report/Technical Memorandum, August 28, 2008.
6. Correspondence, Environmental Information Logistics, LLC to Illinois EPA, Second Year Annual Report, August 6, 2009.
7. Correspondence, Illinois EPA to Environmental Information Logistics, LLC, Second Year Annual Report Comments, August 26, 2009.
8. Correspondence, Environmental Information Logistics, LLC to Illinois EPA, River Well Statistics Technical Memorandum, June 1, 2010.
9. Correspondence, Illinois EPA to Environmental Information Logistics, LLC, River Well Statistics Technical Memorandum, June 16, 2010.
10. Correspondence, Environmental Information Logistics, LLC to Illinois EPA, Third Year Annual Report, September 21, 2010.
11. Correspondence, Illinois EPA to Environmental Information Logistics, LLC, Third Year Annual Report Comments, October 19, 2010.
12. Correspondence, Environmental Information Logistics, LLC, Institutional Controls Investigation/Study Report, November 19, 2010.

Attachment 4

Site Photos

Photos Documenting Site Conditions on September 22, 2010

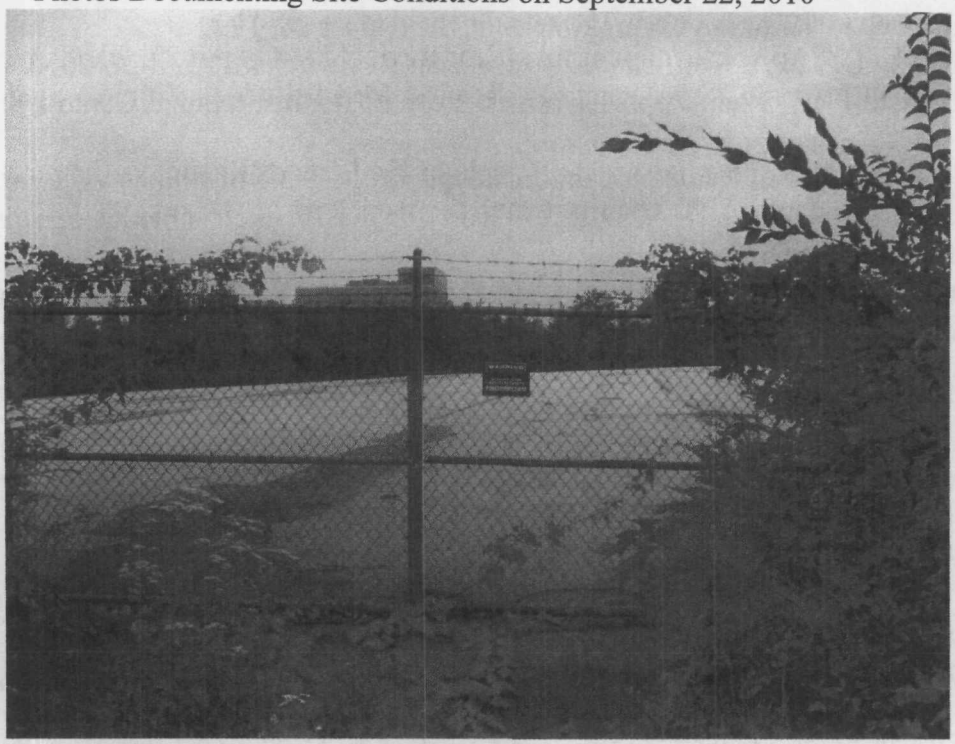


Photo 1-The gate into the site looking west

Photo 2- Groundwater monitoring well MW-5. Typical of 6 on site.

Photo 3- Slight uprise in the security fence.

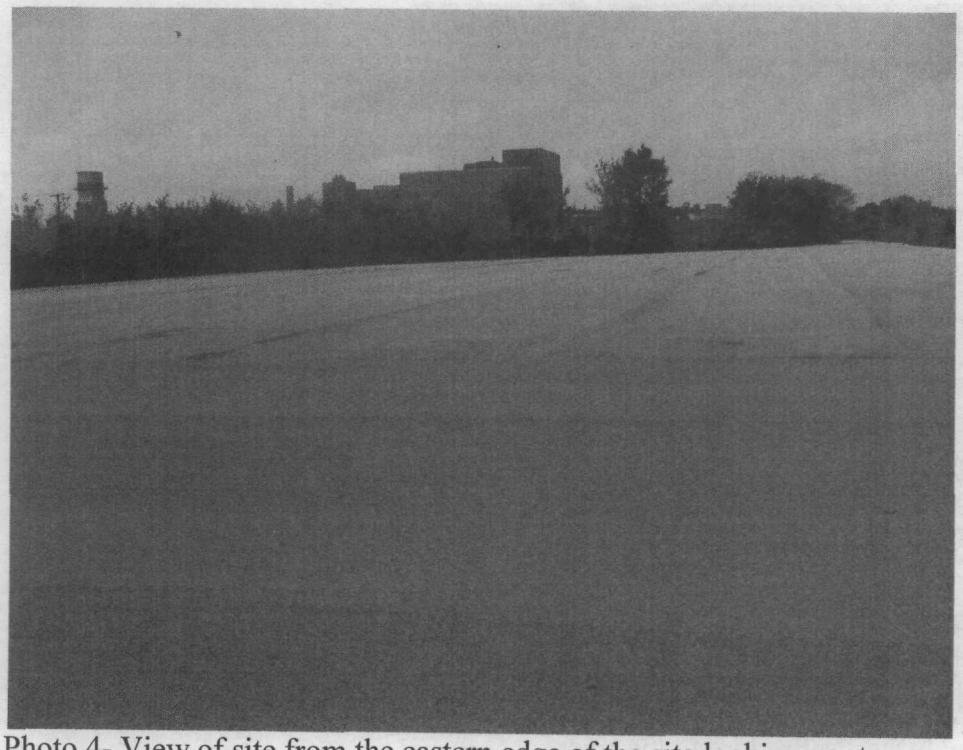


Photo 4- View of site from the eastern edge of the site looking west.

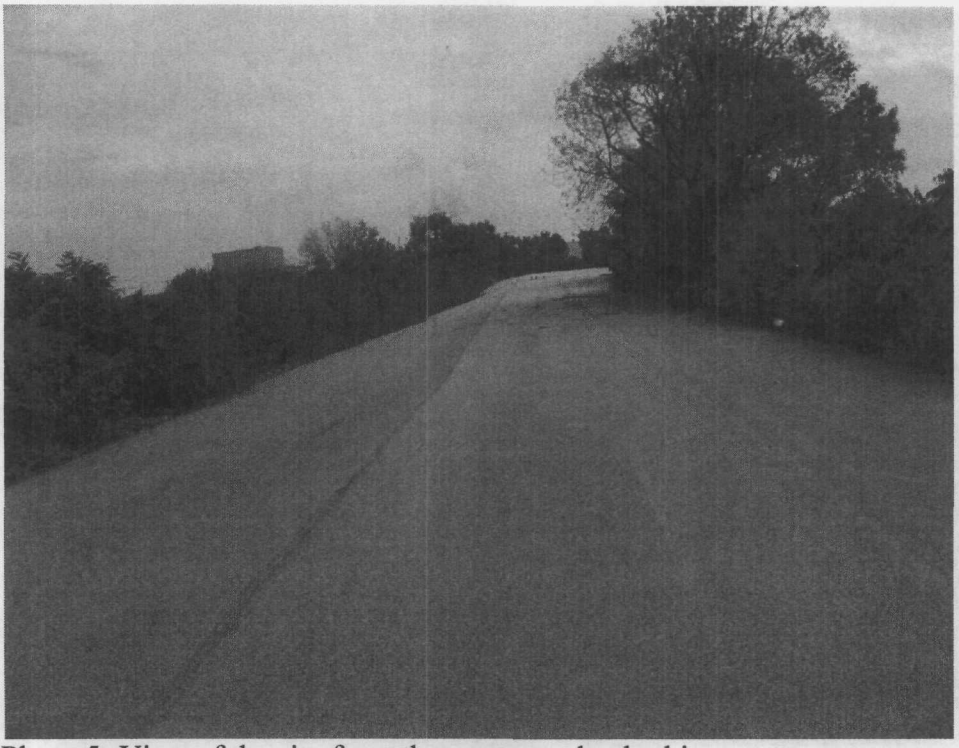
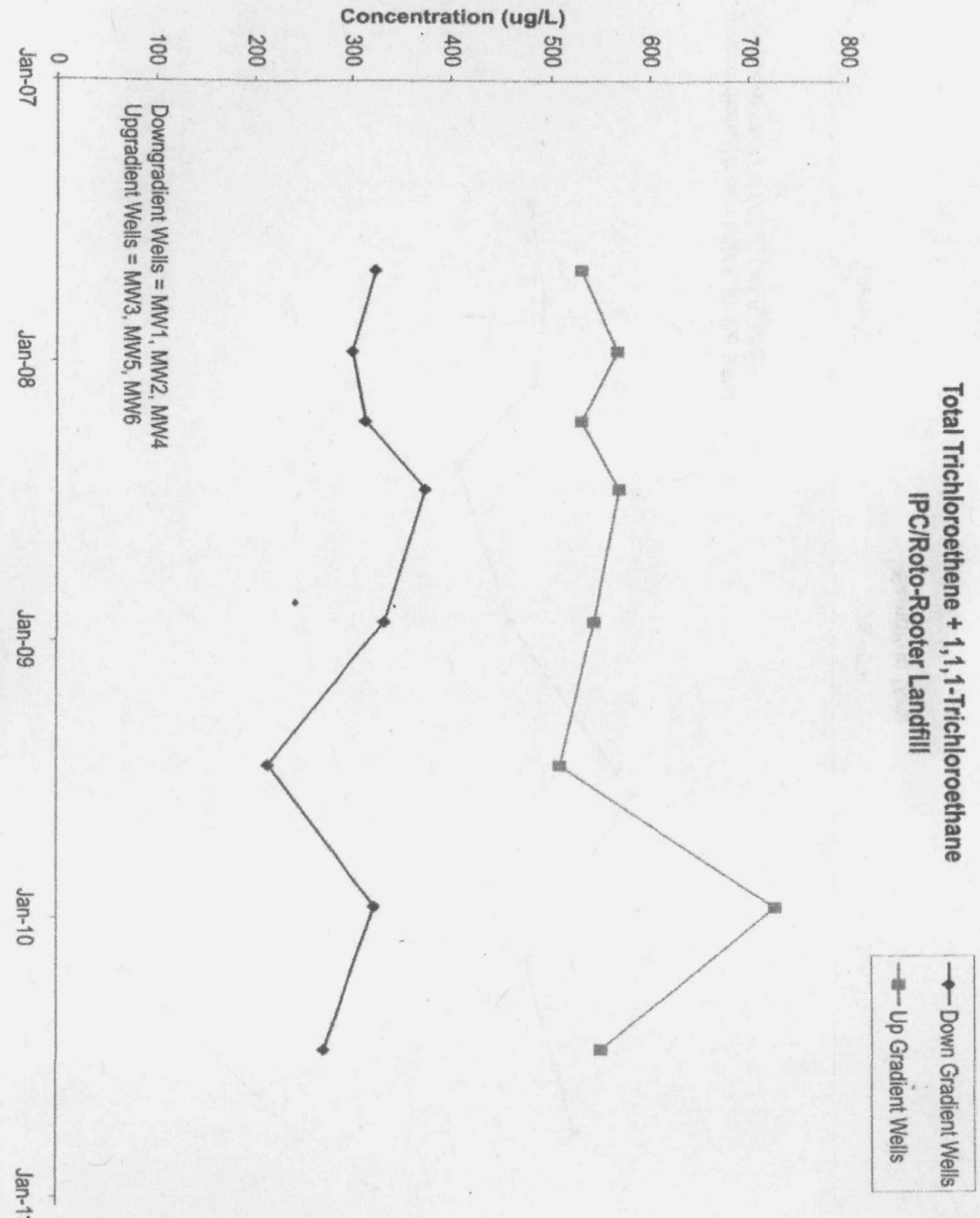


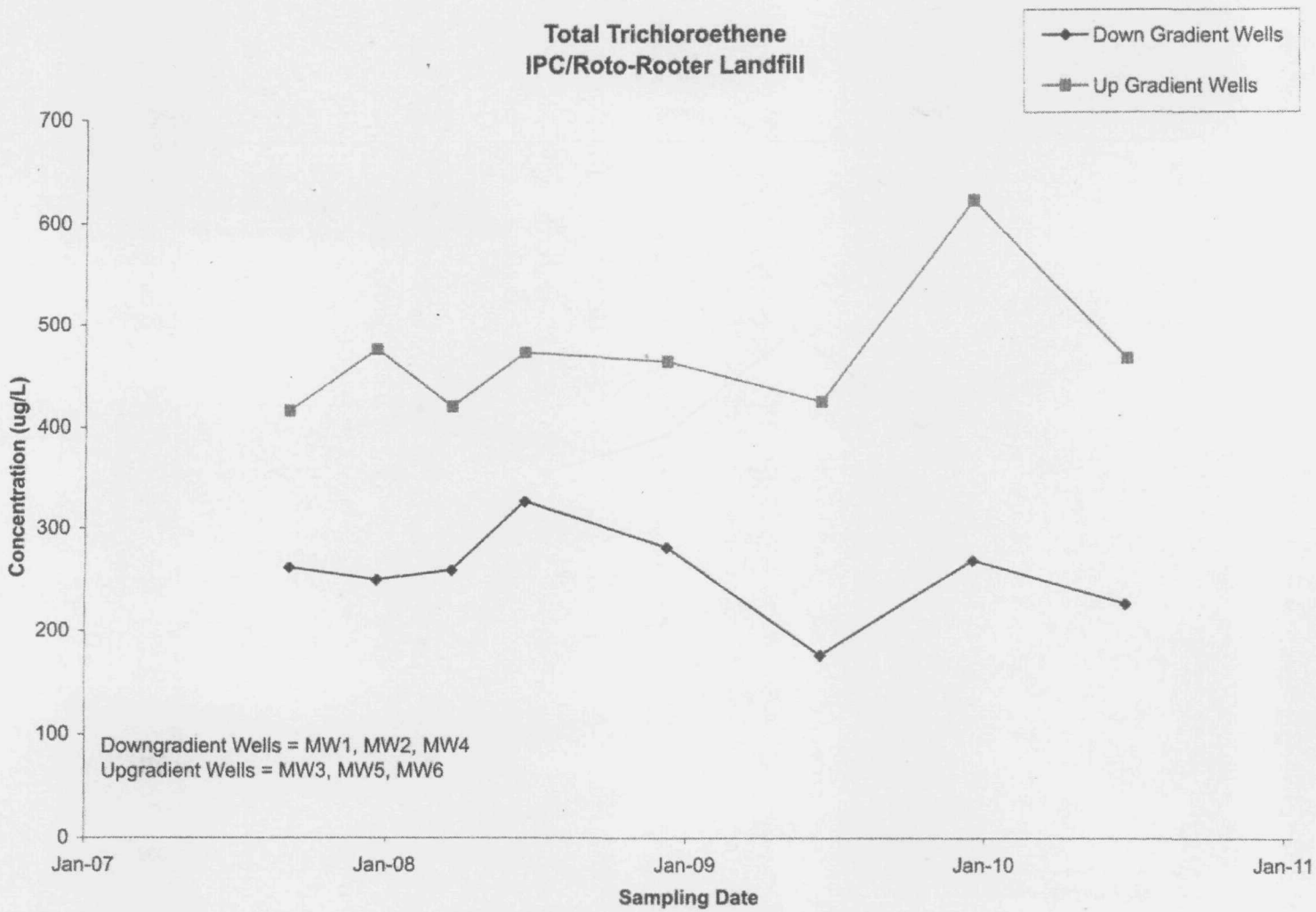
Photo 5- View of the site from the western edge looking east.

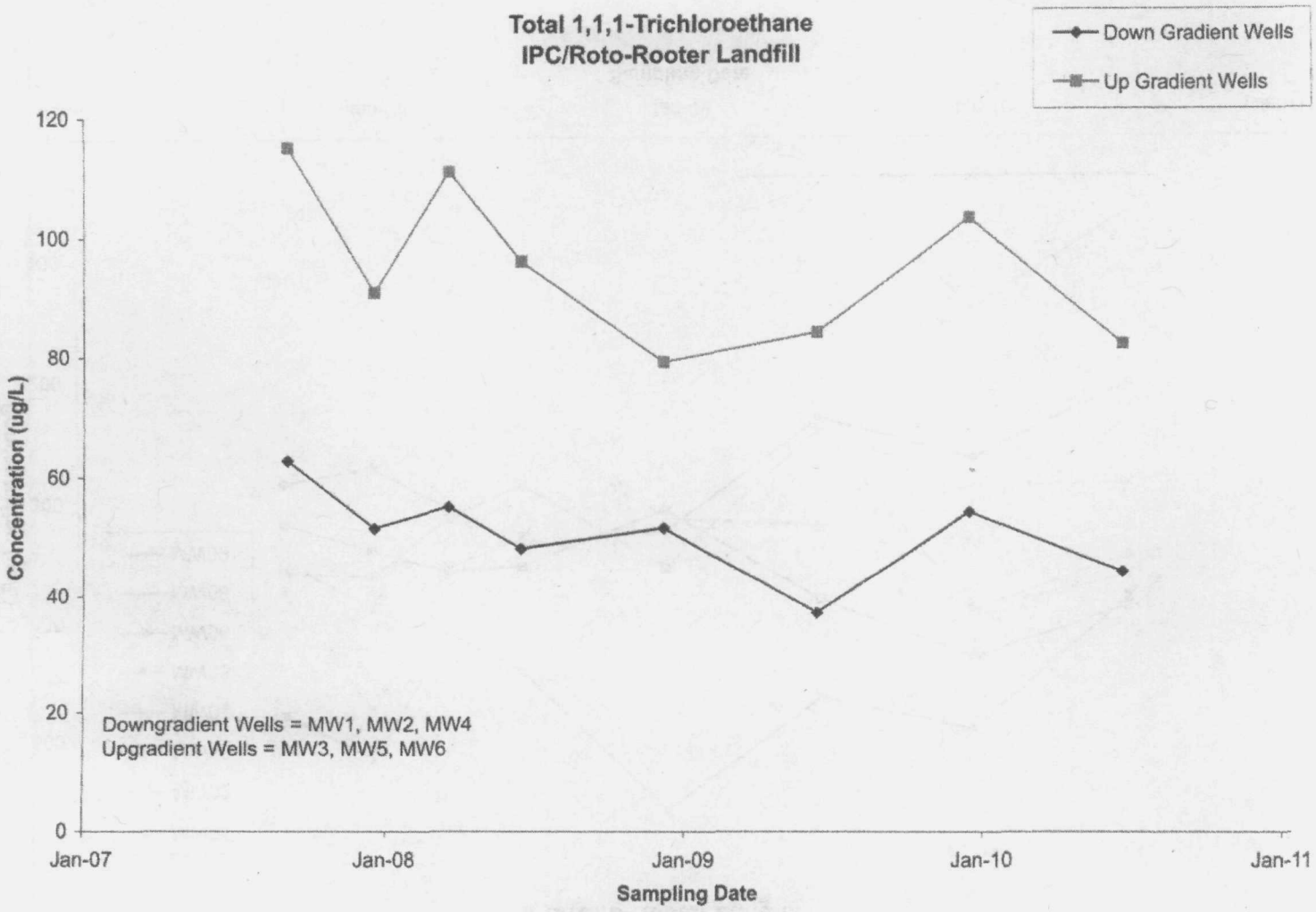
Photo-6- View of one of the groundwater wells close to the river.
Typical of two wells close to the river.

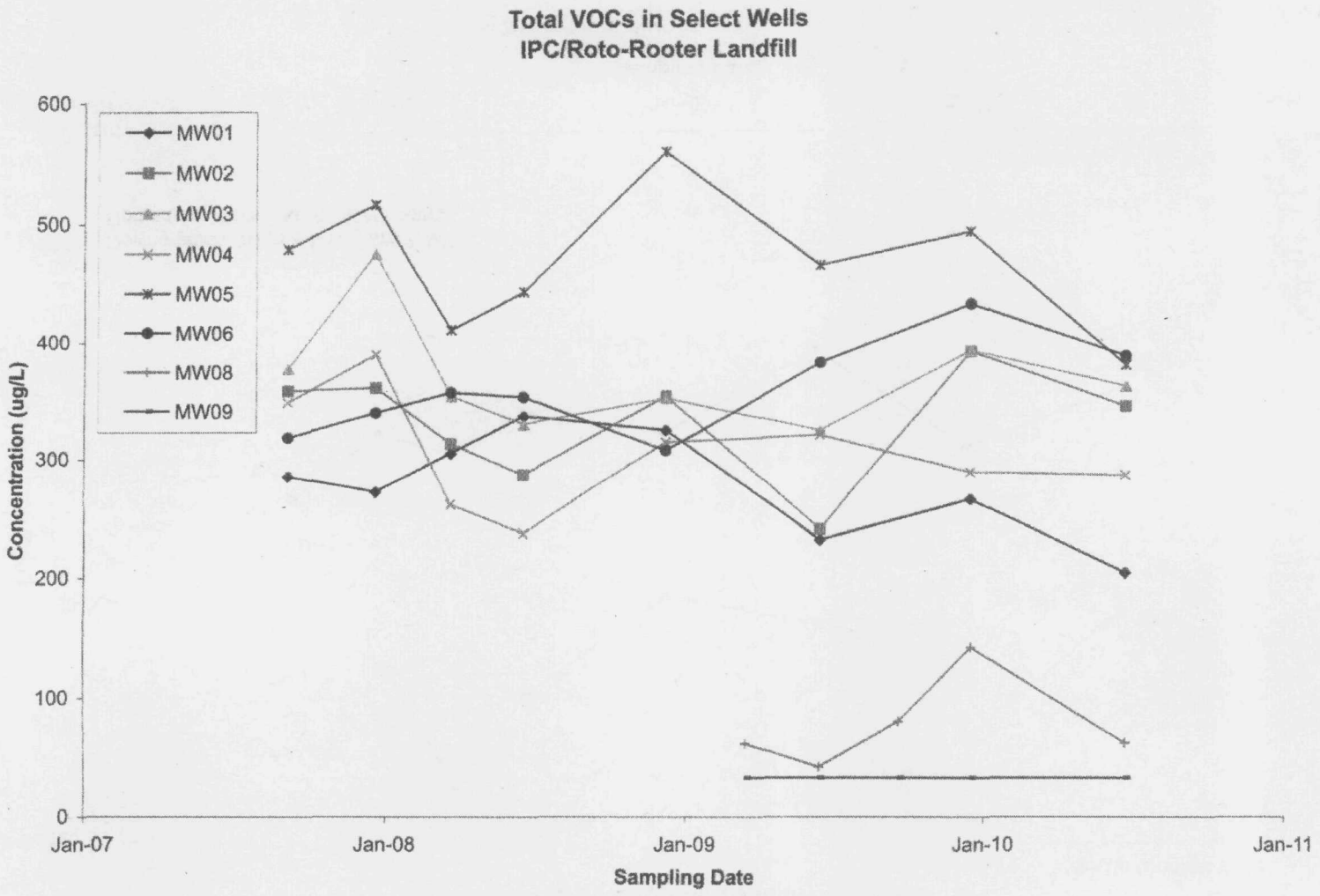
Attachment 5

Graphs of Contaminant Levels




Total Trichloroethene
IPC/Roto-Rooter Landfill
Down Gradient Wells
Up Gradient Wells
700
600
500
400
300
200
100
0
Concentration (ug/L)
Downgradient Wells = MW1, MW2, MW4
Upgradient Wells = MW3, MW5, MW6
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Sampling Date


Total 1,1,1-Trichloroethane
IPC/Roto-Rooter Landfill
Down Gradient Wells
Up Gradient Wells
120
100
80
60
40
20
0
Concentration (ug/L)
Downgradient Wells = MW1, MW2, MW4
Upgradient Wells = MW3, MW5, MW6
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Sampling Date


Total VOCs in Select Wells
IPC/Roto-Rooter Landfill
MW01
MW02
MW03
MW04
MW05
MW06
MW08
MW09
Concentration (ug/L)
600
500
400
300
200
100
0
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Sampling Date

Attachment 6
Site Inspection Checklist

I. SITE INFORMATION	
Site name: Interstate Pollution Control, Inc.	**Date of inspection: September 22, 2010**
Location and Region: Rockford, Il. ; Region 5	**EPA ID: ILT 180011975**
Agency, office, or company leading the Five Year Review: Illinois Environmental Protection Agency	**Weather/temperature: Cloudy/ 70 degrees**

Remedy Includes: (Check all that apply)

X Landfill cover/containment
X Access controls
X Institutional controls
Groundwater pump and treatment
Surface water collection and treatment
X Monitored natural attenuation
Groundwater containment
Vertical barrier walls
Other_Soil Vapor Extraction (SVE) is maintained as a contingent remedial option. The decision to implement the SVE option will be based on the statistical analysis of site groundwater contamination trends per the Record of Decision (ROD).

Attachments: X Inspection team roster attached X Site map attached

II. INTERVIEWS (Check all that apply)

1. **O&M site manager** _Scott R. Moyer_____ Mgr. Remediation _September 23,2010___
   Name Title Date
   Interviewed at site at office X by phone Phone no. _815-270-0660_____
   Problems, suggestions; Report attached _The project is progressing as good as could be expected. It was designed to require very little maintenance. An issue is the approaching contamination plume as described in the ROD.

2. **O&M staff** __Michael Hirt_____ Sr. Geologist September 22, 2010
   Name Title Date
   Interviewed X at site at office by phone Phone no. _630-834-8847_____
   Problems, suggestions; Report attached
   Quarterly inspections have shown little if any change since the site construction was completed. No impact on site protectiveness has occurred.

3. **Local regulatory authorities and response agencies** (i.e., State and Tribal offices, emergency response office, police department, office of public health or environmental health, zoning office, recorder of deeds, or other city and county offices, etc.) Fill in all that apply.

Agency _____
Contact _____ _____ _____ _____
Name Title Date Phone no.
Problems; suggestions; G Report attached _____
_____

Agency _____
Contact _____ _____ _____ _____
Name Title Date Phone no.
Problems; suggestions; G Report attached _____
_____

Agency _____
Contact _____ _____ _____ _____
Name Title Date Phone no.
Problems; suggestions; G Report attached _____
_____

Agency _____
Contact _____ _____ _____ _____
Name Title Date Phone no.
Problems; suggestions; G Report attached _____
_____

4. **Other interviews** (optional) G Report attached.

III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)				
1.	**O&M Documents**			
	O&M manual	Readily available	Up to date	XN/A
	As-built drawings	Readily available	Up to date	X N/A
	Maintenance logs	Readily available	Up to date	X N/A
	Remarks			
	Required documents have been submitted.			
2.	**Site-Specific Health and Safety Plan**	Readily available	Up to date	XN/A
	Contingency plan/emergency response plan	Readily available	Up to date	X N/A
	Remarks			
3.	**O&M and OSHA Training Records**	Readily available	Up to date	X N/A
	Remarks			
4.	**Permits and Service Agreements**			
	Air discharge permit	Readily available	Up to date	X N/A
	Effluent discharge	Readily available	Up to date	X N/A
	Waste disposal, POTW	Readily available	Up to date	X N/A
	Other permits	Readily available	Up to date	X N/A
	Remarks			
5.	**Gas Generation Records**	Readily available	Up to date	X N/A
	Remarks			
6.	**Settlement Monument Records**	Readily available	Up to date	X N/A
	Remarks			
7.	**Groundwater Monitoring Records**	X Readily available	Up to date	N/A
	Remarks			
8.	**Leachate Extraction Records**	Readily available	Up to date	x N/A
	Remarks			
9.	**Discharge Compliance Records**			
	Air	Readily available	Up to date	X N/A
	Water (effluent)	Readily available	Up to date	X N/A
	Remarks			
10.	**Daily Access/Security Logs**	Readily available	Up to date	X N/A
	Remarks			

IV. O&M COSTS

1. **O&M Organization**

State in-house — Contractor for State
PRP in-house — X Contractor for PRP
Federal Facility in-house — Contractor for Federal Facility
Other_____

2. **O&M Cost Records**

Readily available — Up to date
X Funding mechanism/agreement in place
Original O&M cost estimate_____ Breakdown attached

Total annual cost by year for review period if available

From_____ To_____ _N/A_____ Breakdown attached
Date Date Total cost

From_____ To_____ _____ Breakdown attached
Date Date Total cost

From_____ To_____ _____ Breakdown attached
Date Date Total cost

From_____ To_____ _____ Breakdown attached
Date Date Total cost

From_____ To_____ _____ Breakdown attached
Date Date Total cost

3. **Unanticipated or Unusually High O&M Costs During Review Period**

Describe costs and reasons: Mr. Moyer did not provided specific O&M costs, but stated that they were within the ROD estimates._____

V. ACCESS AND INSTITUTIONAL CONTROLS X Applicable N/A

A. Fencing

1. **Fencing damaged** Location shown on site map X Gates secured N/A

Remarks
The fence secures the site. There are a couple of places where the fence has been bent up a few inches from the ground which would allow small animals to enter the site, but not people. Animals have not damaged the site._____

B. Other Access Restrictions

1. **Signs and other security measures** Location shown on site map N/A

Remarks
Warning signs are on the fence.

C. Institutional Controls (ICs)

1. **Implementation and enforcement**

Site conditions imply ICs not properly implemented — Yes X No N/A

Site conditions imply ICs not being fully enforced — Yes X No N/A

Type of monitoring (*e.g.*, self-reporting, drive by) _____

Frequency _____

Responsible party/agency _____

Contact _____ _____ _____ _____

Name Title Date Phone no.

Reporting is up-to-date — Yes No N/A

Reports are verified by the lead agency — Yes No N/A

Specific requirements in deed or decision documents have been met — Yes No N/A

Violations have been reported — Yes No N/A

Other problems or suggestions: G Report attached

_____

_____

_____

_____

2. **Adequacy** ICs are adequate ICs are inadequate N/A

Remarks _____

_____

_____

D. General

1. **Vandalism/trespassing** Location shown on site map X No vandalism evident

Remarks _____

_____

2. **Land use changes on site** X N/A

Remarks _____

_____

3. **Land use changes off site** X N/A

Remarks _____

_____

VI. GENERAL SITE CONDITIONS

A. Roads Applicable X N/A

1. **Roads damaged** G Location shown on site map G Roads adequate G N/A

Remarks _____

_____

B. Other Site Conditions

Remarks
Site condition has not materially changed since construction was completed.

VII. LANDFILL COVERS X Applicable N/A

A. Landfill Surface

1. **Settlement** (Low spots) Location shown on site map X Settlement not evident
   Areal extent_____ Depth_____
   Remarks_____

2. **Cracks** Location shown on site map X Cracking not evident
   Lengths_____ Widths_____ Depths_____
   Remarks_____

3. **Erosion** Location shown on site map X Erosion not evident
   Areal extent_____ Depth_____
   Remarks_____

4. **Holes** Location shown on site map X Holes not evident
   Areal extent_____ Depth_____
   Remarks_____

5. **Vegetative Cover** Grass Cover properly established No signs of stress
   Trees/Shrubs (indicate size and locations on a diagram)
   Remarks N/A

6. **Alternative Cover (armored rock, concrete, etc.)** N/A
   Remarks
   The asphalt cover is in good condition.

7. **Bulges** Location shown on site map X Bulges not evident
   Areal extent_____ Height_____
   Remarks_____

8. **Wet Areas/Water Damage** Wet areas/water damage not evident
   Wet areas Location shown on site map Areal extent_____
   Ponding Location shown on site map Areal extent_____
   Seeps Location shown on site map Areal extent_____
   Soft subgrade Location shown on site map Areal extent_____
   Remarks N/A

9. **Slope Instability** Slides Location shown on site map X No evidence of slope instability
   Areal extent_____
   Remarks_____

B. Benches Applicable X N/A
(Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.)

1. **Flows Bypass Bench** Location shown on site map X N/A or okay
Remarks_____

2. **Bench Breached** Location shown on site map X N/A or okay
Remarks_____

3. **Bench Overtopped** Location shown on site map X N/A or okay
Remarks_____

C. Letdown Channels G Applicable X N/A
(Channel lined with erosion control mats, riprap, grout bags, or gabions that descend down the steep side slope of the cover and will allow the runoff water collected by the benches to move off of the landfill cover without creating erosion gullies.)

1. **Settlement** Location shown on site map X No evidence of settlement
Areal extent_____ Depth_____
Remarks_____

2. **Material Degradation** Location shown on site map X No evidence of degradation
Material type_____ Areal extent_____
Remarks_____

3. **Erosion** Location shown on site map XNo evidence of erosion
Areal extent_____ Depth_____
Remarks_____

4. **Undercutting** Location shown on site map X No evidence of undercutting
Areal extent_____ Depth_____
Remarks_____

5. **Obstructions** Type_____ X No obstructions
Location shown on site map Areal extent_____
Size_____
Remarks_____

6. **Excessive Vegetative Growth** Type_____
X No evidence of excessive growth
X Vegetation in channels does not obstruct flow
X Location shown on site map Areal extent_____
Remarks_____

D. Cover Penetrations X Applicable X N/A

1. **Gas Vents** X Active G Passive
Properly secured/locked Functioning Routinely sampled Good condition
Evidence of leakage at penetration Needs Maintenance
X N/A
Remarks_____

2.	**Gas Monitoring Probes** Properly secured/locked Functioning Routinely sampled Good condition Evidence of leakage at penetration Needs Maintenance XN/A Remarks_____
3.	**Monitoring Wells** (within surface area of landfill) X Properly secured/locked X Functioning XRoutinely sampled X Good condition Evidence of leakage at penetration Needs Maintenance N/A Remarks_____
4.	**Leachate Extraction Wells** Properly secured/locked Functioning Routinely sampled Good condition Evidence of leakage at penetration Needs Maintenance X N/A Remarks_____
5.	**Settlement Monuments** Located Routinely surveyed X N/A Remarks_____

E. Gas Collection and Treatment Applicable X N/A

1. **Gas Treatment Facilities**
   Flaring Thermal destruction Collection for reuse
   Good condition Needs Maintenance
   Remarks_____

2. **Gas Collection Wells, Manifolds and Piping**
   Good condition Needs Maintenance
   Remarks_____

3. **Gas Monitoring Facilities** (*e.g.*, gas monitoring of adjacent homes or buildings)
   Good condition Needs Maintenance N/A
   Remarks_____

F. Cover Drainage Layer X Applicable N/A

1. **Outlet Pipes Inspected** Functioning X N/A
   Remarks_____

2. **Outlet Rock Inspected** X Functioning N/A
   Remarks_____

G. Detention/Sedimentation Ponds Applicable X N/A

1. **Siltation** Areal extent_____ Depth_____ N/A
   G Siltation not evident
   Remarks_____

2. **Erosion** Areal extent_____ Depth_____
   Erosion not evident
   Remarks_____

3. **Outlet Works** Functioning N/A
   Remarks_____

4. **Dam** Functioning N/A
   Remarks_____

H. Retaining Walls Applicable X N/A

1. **Deformations** Location shown on site map Deformation not evident
   Horizontal displacement_____ Vertical displacement_____
   Rotational displacement_____
   Remarks_____

2. **Degradation** Location shown on site map Degradation not evident
   Remarks_____

I. Perimeter Ditches/Off-Site Discharge Applicable X N/A

1. **Siltation** Location shown on site map Siltation not evident
   Areal extent_____ Depth_____
   Remarks_____

2. **Vegetative Growth** Location shown on site map N/A
   Vegetation does not impede flow
   Areal extent_____ Type_____
   Remarks_____

3. **Erosion** Location shown on site map Erosion not evident
   Areal extent_____ Depth_____
   Remarks_____

4. **Discharge Structure** Functioning N/A
   Remarks_____

VIII. VERTICAL BARRIER WALLS Applicable X N/A

1. **Settlement** Location shown on site map Settlement not evident
   Areal extent_____ Depth_____
   Remarks_____

2. **Performance Monitoring** Type of monitoring_____
   Performance not monitored
   Frequency_____ Evidence of breaching
   Head differential_____
   Remarks_____

C. Treatment System Applicable X N/A

1. **Treatment Train** (Check components that apply)
   Metals removal Oil/water separation Bioremediation
   Air stripping Carbon adsorbers
   Filters_____
   Additive (*e.g.*, chelation agent, flocculent)_____
   Others_____
   Good condition Needs Maintenance
   Sampling ports properly marked and functional
   Sampling/maintenance log displayed and up to date
   Equipment properly identified
   Quantity of groundwater treated annually_____
   Quantity of surface water treated annually_____
   Remarks_____

2. **Electrical Enclosures and Panels** (properly rated and functional)
   X N/A Good condition Needs Maintenance
   Remarks_____

3. **Tanks, Vaults, Storage Vessels**
   N/A Good condition Proper secondary containment Needs Maintenance
   Remarks_____

4. **Discharge Structure and Appurtenances**
   N/A Good condition Needs Maintenance
   Remarks_____

5. **Treatment Building(s)**
   N/A Good condition (esp. roof and doorways) Needs repair
   Chemicals and equipment properly stored
   Remarks_____

6. **Monitoring Wells** (pump and treatment remedy)
   Properly secured/locked Functioning Routinely sampled Good condition
   All required wells located Needs Maintenance N/A
   Remarks_____

D. Monitoring Data

1. Monitoring Data
   X Is routinely submitted on time X Is of acceptable quality

2. Monitoring data suggests:
   X Groundwater plume is effectively contained X Contaminant concentrations are declining

D. Monitored Natural Attenuation

1. **Monitoring Wells** (natural attenuation remedy)

X Properly secured/locked X Functioning X Routinely sampled X Good condition
X All required wells located Needs Maintenance N/A
Remarks_____

I.A X. OTHER REMEDIES

If there are remedies applied at the site which are not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor extraction.

XI. OVERALL OBSERVATIONS

A. Implementation of the Remedy

Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.).

The ROD remedy required an engineered barrier over the entire site to: prevent direct contact with site contaminants, serve as an impermeable barrier to limit exposer to soil vapors, prevent fugitive dust emissions, and reduce storm-water infiltration throughsite fill, thereby reducing potential releases to groundwater. The engineered barrier is in good condition with no change since construction was completed. The groundwater contamination concentrations of trichloroethene and 1,1,1-trichloroethane are lower down-gradient than the up-gradient concentrations so the engineered barrier appears to be effective and functioning as designed. A future issue will be the impact on the site from an up-gradient contaminant plume approaching the site.

B. Adequacy of O&M

Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy.

The site is inspected quarterly. No major issues have been identified in these inspections. In the future, vegetation growth on the site perimeter fence will need to be addressed, and there may be a need to put a seal coat on the asphalt barrier in the future.

C.	Early Indicators of Potential Remedy Problems
	Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs, that suggest that the protectiveness of the remedy may be compromised in the future. N/A

I.A.1	D. Opportunities for Optimization
	Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy. N/A